

REMARKS

The abstract and specification have been amended to make editorial changes therein, bearing in mind the criticisms in the Official Action, to place the application in condition for allowance at the time of the next Official Action. The objection to the drawing is believed to have been resolved by the amendment to the specification at the bottom of page 5.

The indication that claims 6-7, 10, and 12 include patentable subject matter is acknowledged with thanks. In reliance thereon, claims 6 and 12 have been amended into independent form and the subject matter of claims 6 and 12 has been included in new claim 23 and amended claim 17, respectively.

The present amendment is responsive to the formal objections to the claims, the rejection of claims 19-20 under 35 U.S.C. §101, and the rejection under §112, second paragraph. The claims have been amended as to form or canceled in response to these criticisms. Reconsideration and withdrawal of the objection and rejections are respectfully requested.

Claims 1-5, 8-9, and 11 were rejected as anticipated by TAKAHASHI 5,331,572; and claims 1-5, 8-9, 11, 13, and 15-18 were rejected as anticipated by SASAKI 6,529,039. Claims 1 and 14 were rejected as unpatentable over BEDNAR et al. 6,543,040 in view of KANEKO 2001/0025364. Reconsideration and withdrawal of the rejections are respectfully requested in view of the present amendment.

Claim 1 has been amended to provide that the wire passing through the hard-macro is a signal wire that connects blocks and/or other hard-macros to each other. Support for the amendment is found at page 1, lines 17-26; page 19, line 25 through page 20, line 1; page 20, lines 11-21; and page 11, line 19 through page 12, line 11.

Neither TAKAHASHI nor SASAKI discloses a "signal wire" passing through the hard-macro as claimed in amended claim 1 and thus the amended claim avoids these rejections under §102.

In the hard-macro of claim 1, a "signal wire" is designed to start at a first outer edge of the hard-macro and terminate at a second outer edge of the hard-macro intersecting with the first outer edge.

As described in the specification at page 3, lines 14-19, the problem to be solved by the present invention is a detour wire relative to a path which "starts at a first outer edge of the hard-macro and terminates at a second outer edge of the hard-macro intersecting with the first outer edge".

For instance, with reference to Figure 1 of the present application describing the prior art, a wire channel has to be arranged between the hard-macros 500 and 700 due to the detour wire 504. The detour wire may be long, if the hard-macro is not designed to include the signal wire as defined in claim 1.

In light of the discussion above, the present invention is not obvious from BEDNAR et al. in view of KANEKO.

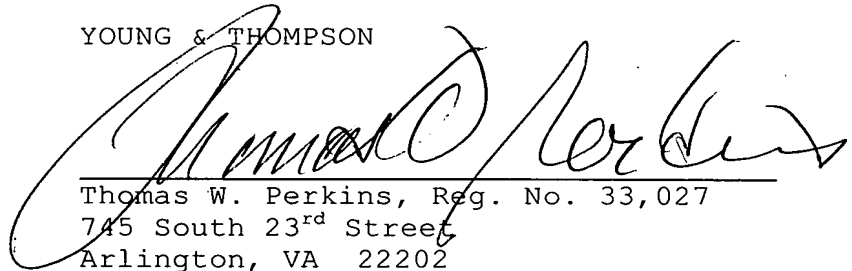
In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Please charge the fee of \$200 for the extra independent claim added herewith, to Deposit Account No. 25-0120.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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TWP/lk

APPENDIX:

The Appendix includes the following item:

- an amended Abstract of the Disclosure